

REMARKS

Entry of the foregoing, reexamination, and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested.

The Office Action indicates that claims 1-15 were pending in the application. Claims 4 and 11-15 have been withdrawn from consideration. Claims 1-3 and 5-10 have been rejected.

By the present amendment, claims 1-3 and 5-8 have been canceled without prejudice or disclaimer of the subject matter disclosed therein. Claim 9 has been rewritten in independent form, incorporating subject matter from claim 1. Claim 10 has been amended to correct a minor typographical error. Claims 16-18 have been added. Claims 16-18 are supported by the specification as claims as originally filed, for example in the subject matter of canceled claims 7 and 8.

A replacement Sequence Listing containing the NAM, CUC1 and CUC2 sequences shown in FIG. 3 is submitted herewith. The paragraph bridging pages 5-6 has been amended to refer to the Sequence Listing.

No new matter has been added by the present amendment. Applicants reserve the right to file a continuation application directed to any subject matter that may have been canceled by the present amendment.

Objections to the Specification

Figures 1A and 1B have objected to as being too dark. Applicants submit clearer copies of the Figures herewith.

The specification has been objected to as not complying with 37 C.F.R. § 1.821(d) in the description of Figure 3. The description of FIG. 3, bridging pages 5-6 has been amended to refer to the sequence listing. A replacement Sequence Listing including the NAM, CUC1 and CUC2 sequences shown in FIG. 3 is submitted herewith.

Objections to the Claims

Claim 10 has been objected to for a minor grammatical error. Claim 10 has been corrected.

Rejections under 35 U.S.C. § 112, second paragraph

Claims 2 has been rejected under 35 U.S.C. § 112 as allegedly indefinite. Without acceding to the allegations of the rejection, claim 2 has been canceled. The rejection is moot.

Rejections under 35 U.S.C. § 112, first paragraph

Written Description

Claims 1-3 and 5-10 have been rejected under 35 U.S.C. § 112 as allegedly containing subject matter that was not adequately described in the specification.

Without acceding to any allegations of the rejection, claims 1-3 and 5-8 have been canceled. The rejection is traversed with respect to claims 9-10.

Claim 9 has been amended to recite a method for delaying the flowering time of plants, comprising the step of introducing a polynucleotide encoding a polypeptide having the amino acid sequence of SEQ ID NO: 2 into the plants, wherein the polynucleotide is operably linked to an expression control sequence.

The subject matter of claims 9 and 10, as amended, is adequately described in the specification, which sets forth the sequence of SEQ ID NO:2 and describes introducing a

polynucleotide encoding a polypeptide having the amino acid sequence of SEQ ID NO: 2 operably linked to an expression control sequence into plants.

Enablement

Claims 1-3 and 5-10 have also been rejected under 35 U.S.C. § 112 as allegedly containing subject matter that was not adequately enabled by the specification.

Without acceding to any allegations of the rejection, claims 1-3 and 5-8 have been canceled. The rejection is traversed with respect to claims 9-10.

The claimed methods are fully enabled by the specification. The LOV1 gene was cloned by transforming Arabidopsis with an activation tagging vector, pSK1015; screening a mutant with delayed flowering time, lov-1D (Example 1); and isolating the gene adjacent to tagged T-DNA from the lov-1D mutant (Example 3). It was confirmed that the expression of LOV1 in the lov1-1d mutant is higher than in the wild type (Example 4).

A person of ordinary skill in the art would appreciate that the phenotype of a lov-1d mutant must be due to the increased expression of LOV1, because the only difference between a lov1-1D mutant, produced by the activation tagging technique, and a wild-type Arabidopsis is the expression level of LOV1. Thus, the invention as presently claimed is fully enabled by the present specification.

Rejections under 35 U.S.C. § 102

Claims 1, 3, 5 and 6 have been rejected under 35 U.S.C. § 102 as allegedly anticipated by Yamada et al. (NCBI Accession No. BT000874). Without acceding to any allegations of the rejection, claims 1, 3, 5 and 6 have been canceled. Therefore the rejection is moot.

Claims 1, 3, 5 and 6 have been rejected under 35 U.S.C. § 102 as allegedly anticipated by Rounsley et al. (NCBI Accession No. AC005312). Without acceding to any allegations of the rejection, claims 1, 3, 5 and 6 have been canceled. Therefore the rejection is moot.

Claims 1, 3, 5-10 have been rejected under 35 U.S.C. § 102 as allegedly anticipated by Colasanti et al. (U.S. Patent Number 6,177,614). Without acceding to any allegations of the rejection, claims 1, 3, 5-8 have been canceled. The rejection is traversed with respect to claims 9 and 10 as amended.

The rejection is premised upon the Office's interpretation of "an" amino acid sequence as encompassing any portion of the amino acid sequence.

Claim 9 has been amended to recite a method for delaying the flowering time of plants, comprising the step of introducing a polynucleotide encoding a polypeptide having the amino acid sequence of SEQ ID NO: 2 into the plants, wherein the polynucleotide is operably linked to an expression control sequence. Claim 10 incorporates all the features of claim 9.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

Coalsanti does not teach or suggest the invention as claimed.

Rejections under 35 U.S.C. § 101

Claims 6 and 8 have been rejected under 35 U.S.C. § 101 as allegedly directed to non-statutory subject matter. Without acceding to any allegations of the rejection, claims 6 and 8 have been canceled. Therefore the rejection is moot.

CONCLUSION

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

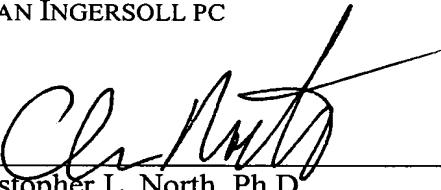
In the event that there are any questions relating to this application, it would be appreciated if the Examiner would telephone the undersigned concerning such questions so that prosecution of this application may be expedited.

The Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: October 10, 2006

By: 
Christopher L. North, Ph.D.
Registration No. 50,433

P.O. Box 1404
Alexandria, Virginia 22313-1404
(703) 836-6620

AMENDMENTS TO THE DRAWINGS:

Please replace FIGS 1-11 with the FIGS 1-11 appearing on the corresponding 14 replacement sheets submitted herewith.